A4

of the preform 3 relative to the torch 4 and is modified on each change of direction of translatory movement, but can also vary during the process, being slaved to the diameter of the preform.

IN THE CLAIMS:

Please enter the following amended claims:

B1

A5

1. (Amended) A method of fabricating an optical fiber preform including a step of outside deposition of silica possibly doped with at least one dopant by injecting at least one substance in the form of silica or a precursor of silica in the vicinity of a heating area created by heating means during at least one pass of injector means and said heating means along a longitudinal axis of said preform during which the relative positions of said injector means and said heating means are adjusted with respect to each other so that said silica is deposited in said heated area regardless of the position of said heating means.

Please add the following new claim 4:

A6

4. (New) The method claimed in claim 1, wherein said heating means has a longitudinal axis and said injector means is offset from the longitudinal axis by a predetermined distance.